Christie Vive Audio S218 Sub-woofer

User Manual

020-101268-01

CHRISTIE®

Christie Vive Audio S218 Sub-woofer

User Manual

020-101268-01

NOTICES

COPYRIGHT AND TRADEMARKS

© 2015 Christie Digital Systems USA Inc. All rights reserved.

All brand names and product names are trademarks, registered trademarks or trade names of their respective holders.

GENERAL

Every effort has been made to ensure accuracy, however in some cases changes in the products or availability could occur which may not be reflected in this document. Christie reserves the right to make changes to specifications at any time without notice. Performance specifications are typical, but may vary depending on conditions beyond Christie's control such as maintenance of the product in proper working conditions. Performance specifications are based on information available at the time of printing. Christie makes no warranty of any kind with regard to this material, including, but not limited to, implied warranties of fitness for a particular purpose. Christie will not be liable for errors contained herein or for incidental or consequential damages in connection with the performance or use of this material. Canadian manufacturing facility is ISO 9001 and 14001 certified.

WARRANTY

Products are warranted under Christie's standard limited warranty, the complete details of which are available by contacting your Christie dealer or Christie. In addition to the other limitations that may be specified in Christie's standard limited warranty and, to the extent relevant or applicable to your product, the warranty does not cover:

a. Problems or damage occurring during shipment, in either direction.
b. Projector lamps (See Christie's separate lamp program policy).
c. Problems or damage caused by use of a projector lamp beyond the recommended lamp life, or use of a lamp other than a Christie lamp supplied by Christie or an authorized distributor of Christie lamps.
d. Problems or damage caused by combination of a product with non-Christie equipment, such as distribution systems, cameras, DVD players, etc., or use of a product with any non-Christie interface device.
e. Problems or damage caused by the use of any lamp, replacement part or component purchased or obtained from an unauthorized distributor of Christie lamps, replacement parts or components including, without limitation, any distributor offering Christie lamps, replacement parts or components through the internet (confirmation of authorized distributors may be obtained from Christie).
f. Problems or damage caused by misuse, improper power source, accident, fire, flood, lightening, earthquake or other natural disaster.
g. Problems or damage caused by improper installation/alignment, or by equipment modification, if by other than Christie service personnel or a Christie authorized repair service provider.
h. Problems or damage caused by use of a product on a motion platform or other movable device where such product has not been designed, modified or approved by Christie for such use.
i. Problems or damage caused by use of a projector in the presence of an oil-based fog machine or laser-based lighting that is unrelated to the projector.
j. For LCD projectors, the warranty period specified in the warranty applies only where the LCD projector is in "normal use" which means the LCD projector is not used more than 8 hours a day, 5 days a week.
k. Except where the product is designed for outdoor use, problems or damage caused by use of the product outdoors unless such product is protected from precipitation or other adverse weather or environmental conditions and the ambient temperature is within the recommended ambient temperature set forth in the specifications for such product.
l. Image retention on LCD flat panels.
m. Defects caused by normal wear and tear or otherwise due to normal aging of a product.

The warranty does not apply to any product where the serial number has been removed or obliterated. The warranty also does not apply to any product sold by a reseller to an end user outside of the country where the reseller is located unless (i) Christie has an office in the country where the end user is located or (ii) the required international warranty fee has been paid.

The warranty does not obligate Christie to provide any on site warranty service at the product site location.

PREVENTATIVE MAINTENANCE

Preventative maintenance is an important part of the continued and proper operation of your product. Please see the Maintenance section for specific maintenance items as they relate to your product. Failure to perform maintenance as required, and in accordance with the maintenance schedule specified by Christie, will void the warranty.

Environmental

The product is designed and manufactured with high-quality materials and components that can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from regular waste. Please dispose of the product appropriately and according to local regulations. In the European Union, there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in!

Addendum

Translated copies of this document are provided on the CD in the back of this document. The CD may also contain additional product documentation. Read all instructions before using or servicing this product.

本文档的翻译副本在本文档背面的 CD 上提供。该 CD 中还可能包含其他产品文档。使用或维修本产品之前请务必阅读所有说明。

文件背面的光碟提供了本文件的翻譯副本。這張光碟可能另外包含其他產品文件。請先閱讀所有指示再使用或送修本產品。

Le CD au dos de ce document contient des traductions de celui-ci dans différentes langues. Ce CD peut également contenir de la documentation supplémentaire sur le produit. Lisez toutes les instructions avant d'utiliser ou d'entretenir ce produit.

Übersetzte Versionen dieses Dokuments werden auf der CD auf dem Vorsatzblatt dieses Dokuments bereitgestellt. Die CD kann auch zusätzliche Produktdokumentation enthalten. Bitte lesen Sie diese Anweisungen vor der Verwendung dieses Produkts oder vor der Ausführung von Wartungsarbeiten am Produkt.

Le copie tradotte di questo documento sono fornite sul CD, sul retro di questo documento. Il CD potrebbe anche contenere altra documentazione sul prodotto. Si prega di leggere tutte le istruzioni prima di utilizzare questo prodotto o sottoporlo a manutenzione.

このドキュメントの翻訳版がこのドキュメントの裏面の CD で提供されています。CD には追加の製品マニュアルも収められています。この製品を使用したり、機能させたりする前に、すべての指示をお読みください。

이 문서의 번역된 사본이 이 문서 후면의 CD 에서 제공됩니다 . 이 CD 에는 추가 제품 설명서가 포함되어 있을 수 있습니다 . 이 제품을 사용하거나 수리하기 전에 모든 지침을 확인하십시오 .

Copias traduzidas deste documento são fornecida no CD contido na parte de trás deste documento. O CD pode conter documentação adicional do produto. Leia todas as instruções antes de usar ou prestar serviço com este produto.

Перевод данного документа представлен на компакт-диске на оборотной стороне документа. Компакт-диск может также содержать дополнительную документацию по продукту. Перед использованием или обслуживанием продукта ознакомьтесь со всеми инструкциями.

Las copias traducidas de este documento se proporcionan en el CD que se encuentra en la parte trasera. En el CD también puede encontrar documentación adicional del producto. Lea todas las instrucciones antes de utilizar o realizar el mantenimiento de este producto.

Перекладені екземпляри цього документа містяться на компакт-диску, який додано до цього документа. На компакт-диску може також бути додаткова документація до виробу. Перш ніж користуватися виробом або його обслуговувати, прочитайте всі інструкції.

Table of Contents

Safety Information 7

Technical support 8

Introduction 10

Speaker overview 10

What's in the box? 10

Installation 11

Connect the speaker wire 11

Platform mount the S218 subwoofer 12

Troubleshooting 13

Specifications 14

Audio 14

Connections 14

Power 14

Physical 15

Parts 15

Accessories 15

Safety Information

- Read this information thoroughly before installing or operating a speaker.
- Read these instructions.
- Keep these instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.
- Do not use this apparatus near water.
- Do not install the speaker near water where the electrical components can be exposed to moisture. Do not place objects containing liquids, such as vases, on the product.
- Clean only with a dry cloth.
- Do not overpower or underpower speaker systems.
- Use only in accordance with manufacturer's specifications and installation guidelines.
- Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerably in their susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. These are the permissible noise level exposures specified by the United States Occupational Safety and Health Administration (OSHA):

Duration (Consecutive)	Sound Level (dbA), Slow Responses
8 hrs	90
6 hrs	92
4 hrs	95
3 hrs	97
2 hrs	100
1.5 hrs	102
1 hr	105
30 min	110
≤15 min	115

- According to the OSHA, any exposure in excess of the above permissible limits could result in some hearing loss. Earplugs or protectors to the ear canals or over the ears must be worn when operating this amplification system to prevent permanent hearing loss, if exposure is in excess of the described limits.
- Two people are required to safely lift and install the speaker.

- Speakers and speakers mounted to brackets must be affixed to a suitable structure following all local safety standards and regulations.
- Always install all legally required additional redundant safety straps or cables.
- Install the minimum number of rigging wires (refer to *Installation* for more details) that are required to suspend the speaker. Observe load ratings and all applicable local safety codes.
- Only use attachments or accessories specified by Christie.
- To reduce the risk of system damage, turn off the power amplifier and then disconnect the speaker wire before performing a repair or maintenance.
- All servicing must be completed by qualified service personnel. Servicing is required when the apparatus has been damaged in any way. For example, liquid has been spilled or objects have fallen onto the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Changes or modifications to the product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Technical support

Contact your dealer or technical support for questions relating to unclear information, malfunctions, or product repairs.

Americas

Email: *tech-support@christiedigital.com*

Phone:

- Canada and USA: +1-800-221-8025
- Chile: 519-744-8005

Europe, Middle East, and Africa

Email: *techsupport-emea@christiedigital.com*

Phone:

- Russia: +7 (495) 930 8961
- Eastern Europe: +36 (0)1 47 48 100
- France: +33 (0) 1 41 21 44 10
- Germany: +49 2161 56620 22
- Italy: +39 (0) 2 9902 1161
- Africa: +27 (0) 11 510 0094
- Spain: +34 91 633 9990
- Middle East: +971 (0) 4 320 6688
- United Kingdom: +44(0) 118 977 8111

Asia Pacific

Email: *tech-asia@christiedigital.com*

Phone:

- Australia: +61 (0) 7 3624 48888
- China: +86 10 6561 0240
- India: +91 (080) 6708 9999
- Japan: 81-3-3599-7481
- South Korea: +82 2 702 1601
- Singapore: +65 6877-8737
-

Introduction

This user manual provides subwoofer installation, troubleshooting, and specification information.

Speaker overview

The S218 subwoofer is designed for auditoriums with approximately 150 to 500 or more seats. Use this speaker to project the low frequency effects (LFE) channel.

What's in the box?

This table lists the components that are shipped with the S218.

Quantity	Description	Part number
1	Christie S218 subwoofer	145-104106-XX

Installation

⚠WARNING

- Before installation, inspect all components for cracks, deformations, corrosion, and missing or damaged parts that could reduce their installation strength.
- A minimum of two people are required to safely lift and install the speaker.
- Speakers must be affixed to a suitable structure following all local safety standards and regulations.
- Only use attachments or accessories specified by the manufacturer.

Failure to comply could result in death or serious injury.

NOTICE

- Allow speakers exposed to extremely low temperatures to warm for a minimum of one hour before playing them at typical application levels. Failure to comply may result in equipment or property damage.
- Speaker wire affects sound quality. Make sure the speaker wire quality and gauge are appropriate for your application.
- The high-pass filter must be set to 24 dB/octave Butterworth at 20 Hz to avoid damaging the subwoofer.

Complete the following procedures to install the speaker.

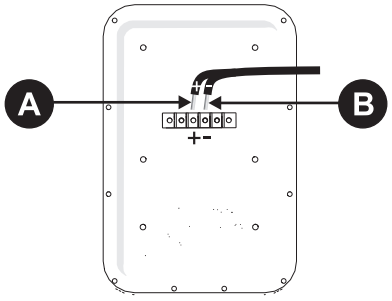
Connect the speaker wire

NOTICE

The amplifier must be turned off and unplugged before you start this procedure.

1. Install the speaker according to the mounting instructions provided in this manual.
2. Connect the speaker wire to the positive (A) and negative (B) terminals on the back of the speaker.

   Use a #8 spade lug (part number: 145-159106-XX) if you are creating crimped spade lug terminations.



A	Positive (+) connection
B	Negative (-) connection

3. Connect the negative and positive speaker wires from the speaker to the corresponding terminals on the amplifier.
4. Turn on the amplifier and verify that the speaker is receiving power.

Platform mount the S218 subwoofer

You can place the S218 subwoofer on a floor or platform without lag bolts, or secure the subwoofer to the platform using appropriately sized lag bolts (not provided in the box), according to laws and regulations applicable to the venue.

The S218 subwoofer cannot be flown.

Troubleshooting

⚠CAUTION Do not service the speaker. All servicing must be completed by qualified service personnel. Failure to comply could result in minor or moderate injury.

Problem	Resolution
The speaker does not function	• Verify that the speaker is receiving power from the amplifier. • Verify that the circuit breaker for the main circuit to the amplifier is open. • Reset the circuit breaker. If the AC mains breaker continues to open, check the voltage and amperage of the circuit. • Verify that the negative and positive speaker wires from the speaker are correctly connected to the terminals on the amplifier.
The speaker sound is degraded	• Visually inspect the speaker for deterioration or holes. • Reduce the output level of the source. • Verify that the negative and positive speaker wires from the speaker are correctly connected to the terminals on the amplifier. • Verify that there are no missing screws. Replace all screws that you removed during installation. • Have an authorized dealer complete an audio test (for example, pink noise, frequency sweeps, and content and program material).
There is speaker noise or hiss	• Mute channels, one at a time, to isolate the problem. • Verify that the cables are in good working condition. • Reroute audio cables away from AC power and lighting cables. • Verify correct gain structuring of B Chain and input and output levels of source devices and amplifiers. • Check the polarity.

Specifications

Audio

Specification	Description
System type	Subwoofer, vented enclosure, with extended bass shelf (EBS) tuning
Driver components	Two 18 in. low frequency drivers each with dual 4 in. voice coil and long linear excursion
Recommended crossover	· External active electronic protection filter · High pass: Butterworth 24dB/octave @ 20Hz · Low pass: Bessel 24dB/octave @ 249H
Frequency response[a]	20-250Hz at -10dB, 24-200Hz at -6dB
Maximum sound pressure level (SPL)[b]	133 dB, continuous, 145 dB, peak
Sensitivity[a], 1 W/1 m	100 dB (40-150 Hz)
Recommended amplifier power	1500 W - 2150 W (FTC) at 4 Ohms / Christie CDA5 or Christie CDA7.5 (depending on application)
Rated impedance	4 Ohms

[a]Measured at 2 m, ground plane conditions.

[b]AES refers to AES2-2012 standard. Pink noise with 6 dB crest factor at 1 m. Maximum continuous SPL is calculated based on sensitivity and AES power handling. IEC refers to IEC 60268-5 standard. IEC pink noise with 9 dB peak factor. Maximum peak SPL is calculated using peak voltage during IEC short-term power test.

Connections

Specification	Description
Inputs	Screw terminal barrier strip

Power

Specification	Description
Power handling[b]	2000 W (AES) continuous, 4000 W (IEC) short-term

Physical

Specification	Description
Enclosure	Extended Bass Shelf vented 18mm marine plywood Heavily damped and braced
Dimensions (H x W x D)	130 cm x 76.8 cm x 60.8 cm (51.2 in.) x (30.3 in.) x (24.0 in.)
Weight (net)	98 kg (216 lb)

Parts

Specification	Part Number
18 in. cone driver	003-120884-XX

Accessories

Specification	Part Number
SpeakON Connector (for amplifier output to speaker)	145-158105-XX
#8 Spade Lug (for speaker input from amplifier)	145-159106-XX

000-10548-01
ASSY TECH DOCS VIVE S218

Corporate offices

USA – Cypress
ph: 714-236-8610

Canada – Kitchener
ph: 519-744-8005

Consultant offices

Italy
ph: +39 (0) 2 9902 1161

Worldwide offices

Australia
ph: +61 (0) 7 3624 4888

Brazil
ph: +55 (11) 2548 4753

China (Beijing)
ph: +86 10 6561 0240

China (Shanghai)
ph: +86 21 6278 7708

Eastern Europe and
Russian Federation
ph: +36 (0) 1 47 48 100

France
ph: +33 (0) 1 41 21 44 04

Germany
ph: +49 2161 664540

India
ph: +91 (080) 6708 9999

Japan (Tokyo)
ph: 81 3 3599 7481

Korea (Seoul)
ph: +82 2 702 1601

Republic of South Africa
ph: +27 (0)11 510 0094

Singapore
ph: +65 6877-8737

Spain
ph: + 34 91 633 9990

United Arab Emirates
ph: +971 4 3206688

United Kingdom
ph: +44 (0) 118 977 8000

For the most current technical documentation, please visit www.christiedigital.com

CHRISTIE®